Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
Mary Beth Tung, Director

MARYLAND ENERGY ADMINISTRATION
SB0265 CLEAN AND RENEWABLE ENERGY STANDARD

Testimony of Mary Beth Tung
Director

Maryland Senate Finance Committee
February 11, 2020

Thank you Madam Chair, Vice Chair, and committee members. With the legislation before the committee today, CARES, we are proud to be a part of a bold energy strategy that builds off of the existing RPS, and sets forth vital enhancements. The provisions in CARES will help to provide Maryland with the sort of rapid and meaningful reductions in harmful air emissions that contribute to climate change. MEA works closely with MDE and Sec. Grumbles, along with the PSC, to implement energy programs and develop policies that lower the air emissions that science tells us are contributing to climate change.

As a part of our mission, MEA also considers affordability, reliability, and resiliency along with emissions when drafting and implementing our programs. All of these concerns played a role in the language drafted for CARES. I'm happy to provide the committee with a brief overview of some important terms of the legislation.

I want to begin by highlighting a key component of CARES; there is a catch-all provision whereby the PSC may draft regulations to incorporate emerging clean energy technologies into the clean resource tier proposed by the legislation. This provision gives flexibility to incorporate technologies not yet developed into the program.

Other key components of CARES include:

1) The creation of a clean resource tier, which complements the existing RPS, and will increase the reliability and resiliency of Maryland's electrical grid. CARES incentivizes scalable generation

assets which utilize zero carbon technology, such as assets equipped with carbon capture utilization and sequestration, or reuse, technology. Adopting such technology helps to ensure that Maryland's electrical distribution grid stays energized during peak loads: such as during very hot summer days, or very cold winter days, when intermittent assets like solar and wind can't provide sufficient wattage.

2) One such technology that we believe should be awarded clean energy resource credits is any future nuclear energy generation facilities. Calvert Cliffs already achieves the equivalent of replacing hundreds of thousands of conventional fossil fueled vehicles with EVs in avoided air emissions annually. Nuclear power is the most reliable, safest, and cleanest source of baseload electricity in Maryland. I repeat, nuclear power is the most reliable, safest and cleanest source of baseload electricity in Maryland. New technology, which will be commercially deployed in the near future, will provide Maryland's demand for clean electricity with a solution that has much better financial flexibility than traditional nuclear power plants. By making **future** in-state nuclear facilities eligible for clean energy resource credits, and by accounting for the clean electrons already generated by our existing facilities, CARES provides a unique approach that recognizes the carbon- and greenhouse gas-free merits of clean and safe nuclear energy. Again, the goal of CARES is to clean up the electric grid as quickly as possible in a science-based, competitive, and smart manner that helps to protect Maryland jobs and ratepayers while keeping electricity affordable, reliable and as clean as possible. Lives depend on affordable and reliable energy.

3) Next I'll discuss distributed generation incentives for clean technologies, such as efficiency achieved through Combined Heat and Power (CHP). CHP generation heats and powers dwellings and other assets without line loss in an incredibly efficient and clean manner. MEA has long supported CHP, and we believe that the resiliency features of CHP will keep Maryland's residents safer from meteorological events such as Superstorm Sandy and others; while also keeping our businesses and employers competitive with our neighbors. In Maryland, we also have a large and robust efficiency program, EmPOWER, which other jurisdictions look up to as a model. That is why CARES requires that CHP assets meet minimum efficiency levels in order to earn clean energy resource credits. These CHP systems must be 60-90% efficient, while traditional generation assets are only 30-35% efficient. So, resiliency is built in and efficiency is mandated, which is a positive policy win for Maryland.

   The same virtues of clean CHP distributed generation apply to renewable distributed generation assets as well, which is why the state subsidizes those assets, and why CARES leaves those resources undisturbed. While distributed solar outperforms CHP in terms of fuel costs (it is $0 for sunlight); CHP outperforms renewable assets in terms of reliability, resiliency, and raw wattage versus geographic footprint.

4) Finally, I'd like to discuss carbon capture sequestration and utilization which another technology rapidly developing in the energy field. By augmenting existing generation facilities with carbon capture technology, we can convert certain assets to carbon-free facilities, with minimal dislocations to Maryland's electric grid. Following capture, carbon would be either permanently sequestered in an appropriate geologic formation or permanently utilized in industry. Either way, the carbon must be permanently sequestered in order to earn clean energy resource credits under CARES.

Under this strategy, we believe Maryland will meet its target of **100% clean electricity by 2040**, with greater in-state benefit and without sending jobs and dollars out of Maryland. As a result, we will meet our energy and carbon-reduction goals faster, at less-cost, and more reliably. Therefore, we strongly urge the committee to report favorably on CARES. I'm happy to answer questions.